

WCWC



INNOVATIVE
RESEARCH

HIGH-QUALITY
TRAINING

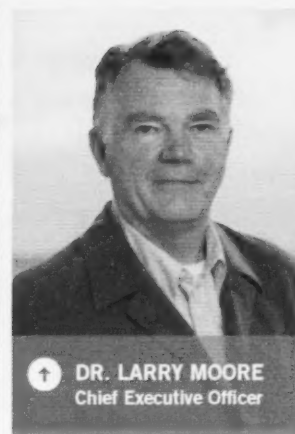
LEADING-EDGE
TECHNOLOGY

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↑ **RUI DE CARVALHO**
Chair, Board of Directors



↑ **DR. LARRY MOORE**
Chief Executive Officer

MESSAGE FROM THE CHAIR & THE CEO

Our mission is to safeguard drinking water for the people of Ontario as the leading centre for high-quality training, applied research and technology demonstration. And across Ontario, we've delivered.

In 2011-12, the Centre made real progress on the goals outlined in our business plan. We've listened to our clients' requests for more hands-on training and have delivered through the introduction of Maintenancefest, the expansion of the postsecondary program and the launch of several new hands-on courses. The WCWC Training Institute set an aggressive target for the number of people trained, which was surpassed through close cooperation with clients across Ontario. We formed the WCWC Training Advisory Committee and reconstituted the WCWC Research Advisory Committee, each made up of water industry specialists who volunteer their time to help guide the Centre's initiatives. Our capacity to support Ontario's water technology sector has been increased. Our research program continues to transfer knowledge on cost-effective solutions for small drinking water systems. Considerable accomplishments — across the province — all while increasing revenue and controlling costs.

Our desire to provide meaningful support to Ontario's First Nations drinking water systems remains strong. In 2011-12, First Nations drinking water operators benefited from intensive hands-on training at the Centre and we delivered train-the-trainer to allow First Nations instructors to deliver training on-site. We continue to build on our programs to increase the availability and improve the

accessibility of training for small and remote systems, including First Nations systems.

The WCWC Training Institute and WCWC Research & Technology Institute were established in 2011. The institutes increase the Centre's capacity to administer, develop and deliver the Ministry of the Environment's mandatory courses and WCWC courses, conduct practical research, and support Ontario's water technology companies. The Centre's Department of Management Services realigned to ensure effective support of program initiatives. The Centre is a strong supporter of the province, Ontario municipalities, water operators, First Nations, researchers, postsecondary institutions, engineering firms and water technology/service companies.

We would like to take this opportunity to express our sincere gratitude to the Ministry of the Environment for their continued support, the Centre's board of directors for their guidance, and the Centre's excellent staff for their commitment to another successful year.

Rui De Carvalho
Chair, Board of Directors
Walkerton Clean Water Centre

Dr. Larry Moore
Chief Executive Officer

The number
of hands-on
training
participant
hours
increased by
506%



MISSION & MANDATE

MISSION

We safeguard drinking water for the people of Ontario as the leading centre for high-quality training, applied research and technology demonstration.

MANDATE

The mandate of the Walkerton Clean Water Centre is:

- **TO DELIVER** drinking water education and training for owners, operators and operating authorities of drinking water systems.
- **IN COLLABORATION** with other training organizations, to coordinate the accessibility and availability of education and training for owners and operators.
- **TO PROVIDE SUPPORT** to owners, operators and operating authorities with a primary focus on small, remote and older systems by providing information and advice about those topics outlined in Ontario Regulation 304/04 s. 3 (2).
- **TO DEMONSTRATE** leading-edge drinking water treatment technology.
- **TO ASSESS** research gaps and needs, advise the Ministry of the Environment on research priorities and to respond to the resulting direction from the Minister of the Environment. The Centre can sponsor high-priority drinking water research that contributes directly to the Centre's mandate.
- **TO PROVIDE**, both directly and through alliances with other organizations and in coordination with the ministry, public outreach and education related to the Centre's mandate and to make technical, scientific and regulatory information more readily available including information about the statutory standard of care requirement in section 19 of the Safe Drinking Water Act, 2002.



FALL SEMINAR PARTICIPANTS enjoying themselves while using nose clips to identify the differences between tastes and odours.

- **TO CONTRIBUTE** to Ontario's drive to be a leader in the water technology sector, as embodied in the Water Opportunities Act, 2010, by providing services and support including assessment of drinking water technologies/services, business-to-business partnerships and network development assistance.
- **TO PROVIDE** other services as described in any policy direction issued by, or set out in any agreement with the Minister, that helps to safeguard drinking water.

Within this mandate, the Centre places particular emphasis on addressing three critical gaps in training identified by the Walkerton Inquiry, namely:

- i) accessibility of training for operators in small communities
- ii) availability of required training
- iii) training for First Nations operators

The course,
Standard of
Care—Safe
Drinking
Water Act,
was delivered
to more than
500
municipal
decision
makers



C O R P O R A T E P R O F I L E

The Walkerton Clean Water Centre (the Centre), an operational service agency of the Government of Ontario, was established in October 2004 as part of the province's response to the Walkerton Inquiry Report. The Centre is governed by a board of directors of up to 12 members. It operates out of the Centre's Leadership in Energy and Environmental Design (LEED) Gold certified permanent facility, which was built for training, research and technology demonstration.

The Centre provides training for drinking water operators across Ontario, with a focus on smaller and remote systems, including those serving First Nations. The Centre's Technology Demonstration Facility, with its leading-edge drinking water technologies, is an effective platform for hands-on training and research on cost-effective solutions for small drinking water systems. The Centre is also responsible for delivering education, information and advice on water treatment, equipment, technology and operational requirements, and environmental issues related to drinking water. The Centre works to support the drinking water related goals and priorities of the Government of Ontario.

Because research is a part of the mandate, the Centre conducts its own research and collaborates with academia. Projects this year focused on topics such as advanced oxidation and the removal of pharmaceuticals, personal care products and endocrine disrupting compounds from drinking water.

Located in the Town of Walkerton in the Municipality of Brockton, the Centre has a local, provincial, national and international profile. It offers services throughout the province and serves as a model for the development of similar facilities worldwide.



↑ XIAOHUI JIN, RESEARCH LEAD, AND TORY HEWLETT, TECHNICIAN, at work in the Technology Demonstration Facility.

The following highlights are a few of many accomplishments of the Centre in 2011-12.

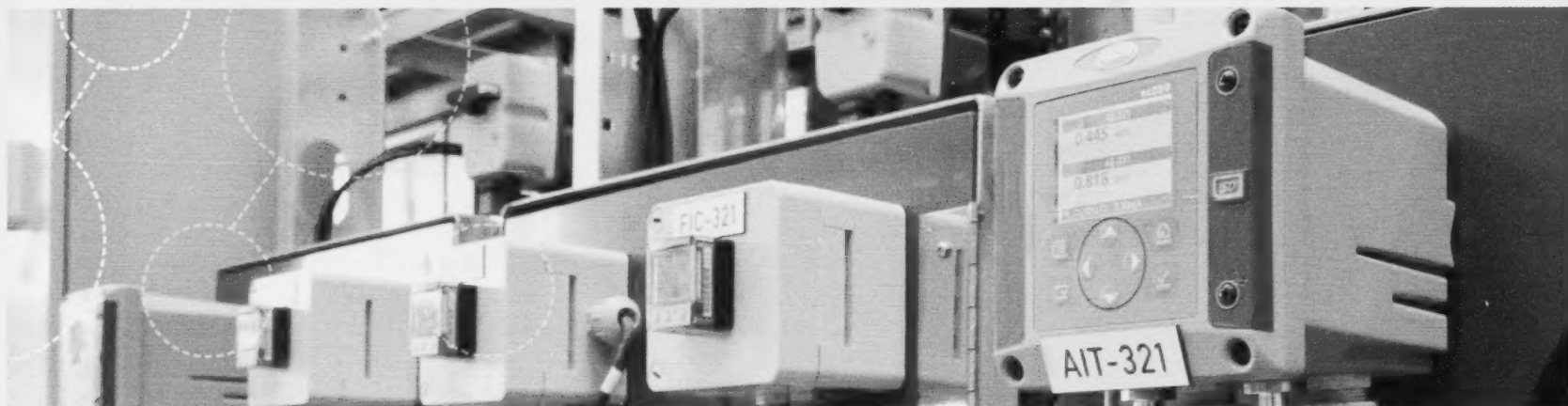
The WCWC Training Institute has increased its capacity to provide training services in 2011-12. WCWC Training Institute highlights for the 2011-12 year include:

- **INCREASED CAPACITY** to develop, administer and deliver training—including the Ministry of the Environment's mandatory courses required for the certification of drinking water operators—decreasing the Centre's reliance on external trainers.
- **FORMED A TRAINING ADVISORY COMMITTEE** made up of water industry specialists to help guide the Centre's training initiatives.
- **IMPLEMENTED A QUALITY ASSURANCE PROGRAM** to ensure that course content, course delivery and adult education principles meet high standards.
- **INCREASED AVAILABILITY OF, AND IMPROVED ACCESS TO, TRAINING** for small and remote systems, including First Nations.

The Centre also strengthened the WCWC Research & Technology Institute. Highlights for the 2011-12 year include:

- **SUPPORTED THE EDUCATION OF YOUNG PEOPLE** pursuing careers in the water sector by increasing hands-on training for postsecondary students and enhancing affiliations with postsecondary schools.
- **INCREASED HANDS-ON TRAINING** for drinking water operators through Maintenancefest.
- **RECONSTITUTED THE RESEARCH ADVISORY COMMITTEE** to review the annual research plan, including research priorities and existing contracts that include financial support.
- **ESTABLISHED TECHNOLOGY ASSESSMENT PROJECTS**, which provide opportunities to collaborate and generate revenue.
- **IMPROVED POSITIONING** to support Ontario's water technology industry through third-party assessment of new and existing water technologies, business-to-business collaborations, network development assistance and industry event alliances.

10%
of
Maintenancefest
participants
were First
Nations
drinking water
operators



C O R P O R A T E G O V E R N A N C E

On the recommendation of the Premier of Ontario and the Minister of the Environment, the Lieutenant Governor-in-Council appoints the chair and members of the Walkerton Clean Water Centre's board of directors. Under the leadership of the chair, the board of directors is responsible for overseeing the Centre's activities.

The Centre is governed by Ontario Regulation 304/04, the Centre's bylaws and a memorandum of understanding with the Minister of the Environment.

ACCOUNTABILITY

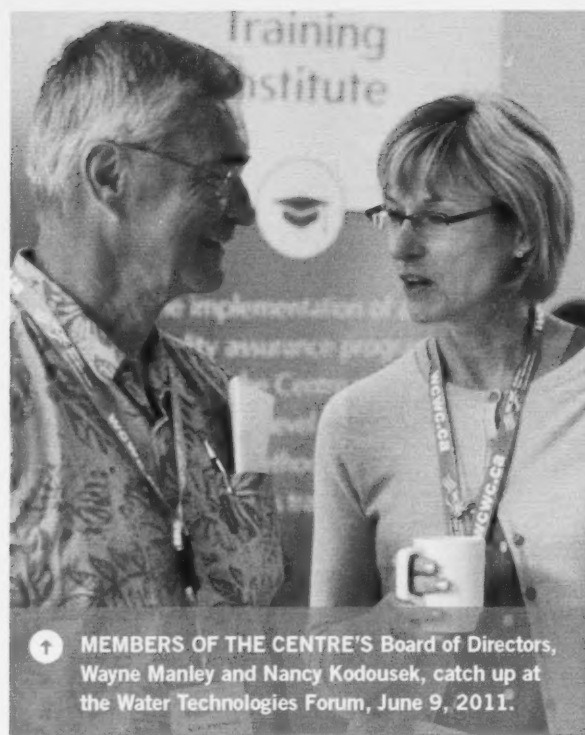
The Centre is committed to public transparency and accountability. It is accountable to the Government of Ontario and the citizens of Ontario. The Centre is required to comply with relevant Government of Ontario policies, directives and guidelines, including the Agency Establishment and Accountability Directive, the Procurement Directive and the Travel, Meal and Hospitality Expenses Directive to meet expectations regarding its operations.

The board of directors is responsible for ensuring there is an annual external audit of the Centre's operations and financial transactions as required by both Ontario Regulation 304/04 and the memorandum of understanding. This annual audit is subject to review by the Auditor General of Ontario. In addition, the Minister of the Environment may request an internal audit of the Centre's operations every three years, or at any time.

In accordance with the requirements of Ontario Regulation 304/04, the Centre must submit an annual report for each fiscal year. This 2011-12 annual report includes the Centre's audited financial statements and is part of the accountability structure. It is submitted to the Minister of the Environment, who tables it in the Ontario legislature. The report is available to the public on the Centre's website: <http://www.wcwc.ca>.

The Agency Establishment and Accountability Directive also requires that the Centre prepare a minimum three-year rolling business plan each year. The board of directors oversees and directs the development and implementation of business plans, including the review of risks, performance measures and outcomes in consultation with the ministry.

In addition to the annual reports and business plans, the Centre is responsible for developing and implementing policies and procedures necessary to ensure the transparency and accountability of its operations.



1 MEMBERS OF THE CENTRE'S Board of Directors, Wayne Manley and Nancy Kodousek, catch up at the Water Technologies Forum, June 9, 2011.

7
new
courses were
introduced



BOARD OF DIRECTORS, 2011-12

Members of the Walkerton Clean Water Centre's board of directors are appointed by the Government of Ontario. Members hold office for a term of up to two years and are eligible for reappointment for successive terms. The board is accountable to the Ontario legislature through the Minister of the Environment and is responsible for the overall supervision of the operations of the Centre. The board meets regularly at the Centre.

RUI DE CARVALHO, M.ENG., P.ENG., CHAIR

Senior Vice-President, R.J. Burnside & Associates Limited, and
President, R.J. Burnside International Limited
Member since: October 12, 2004
Current term: September 8, 2011 – September 7, 2012

Mr. De Carvalho has more than 35 years of experience as a consulting engineer in the water supply sector, both in Canada and internationally. In addition to various roles on municipal water supply projects his experience also includes more than 20 years working on water supply and infrastructure servicing in First Nations communities in Ontario and Labrador. He

is currently the project director leading a series of major projects related to the reconstruction of the urban water supply infrastructure in Mozambique.

Mr. De Carvalho is a Designated Consultant by Professional Engineers Ontario, a member of the American Water Works Association, the Water Environment Federation and the Canadian Society for Civil Engineering. He is also an environmental engineer certified by the American Academy of Environmental Engineers.

NANCY KODOUSEK, P.ENG., VICE-CHAIR

Director of Water Operations, Region of Waterloo
Member since: October 12, 2004
Current term: July 8, 2010 – July 7, 2012

Ms. Kodousek has more than 27 years of senior management experience with both municipal and private sector water and wastewater systems. Prior to her current position as director of water operations at the Region of Waterloo, she held similar management-level positions at AWS Engineers & Planners (formerly Azurix) and the Region of Ottawa-Carleton.

Ms. Kodousek is a member of Professional Engineers Ontario, the Ontario Society of Professional Engineers, the American Water Works Association, and the Ontario Water Works Association. She participates and volunteers on a number of committees including the Ontario Water Works Association – Government Affairs Committee, Canadian Water and Wastewater Association and Canadian Municipal Consortium. She also holds certification as a level IV operator in water treatment, water distribution, wastewater collection and wastewater treatment.

CATHIE BROWN

Source Water Protection Project Manager,
Ausable Bayfield and Maitland Valley Source Protection Region
Member since: October 12, 2004
Current term: August 20, 2011 – August 19, 2013

Ms. Brown is the source water protection project manager for the Ausable Bayfield and Maitland Valley Source Protection Region. Prior to this, she was the executive director of the Ontario Rural Council and was responsible for the overall leadership of this non-profit, provincewide organization, which is dedicated to facilitating rural networks and coordinating working groups.

Ms. Brown also lectures on rural health at the University of Western Ontario in the Faculty of Health Sciences.

The
Centre has
\$1,391,193
of technical
equipment
capital assets

LOU ANTHONY D'ALESSANDRO

Public Health Inspector, North Bay Parry Sound
District Health Unit, Environmental Health Division
Member since: October 12, 2004
Current term: August 20, 2011 – August 19, 2013

Mr. D'Alessandro is a certified public health inspector and has been involved with public health for more than 25 years. He is currently employed by the North Bay Parry Sound District Health Unit as an area Public Health Inspector in the Environmental Health Division. Mr. D'Alessandro holds certification as a water quality analyst (class 1), onsite sewage system inspector (part 8 septic systems under the Ontario Building Code) and small water systems operator. Mr. D'Alessandro has managed several programs under the Health Protection and Promotion Act.

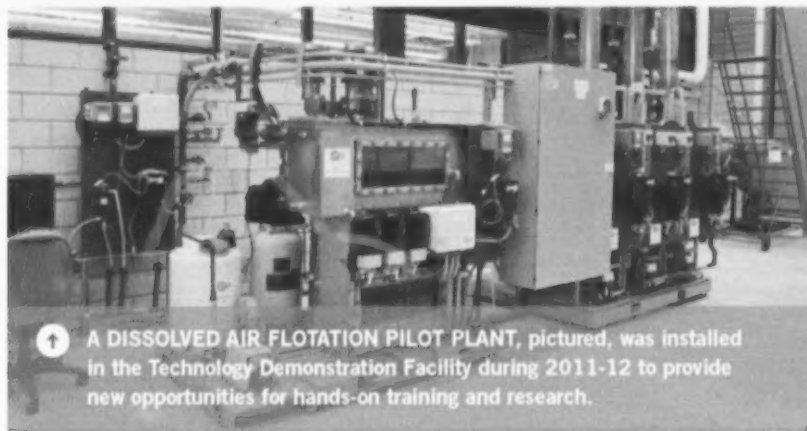
Mr. D'Alessandro is a member of the Saugeen, Grey Sauble, Northern Bruce Peninsula Source Water Protection Committee.

MURRAY J. ELSTON

Member since: October 12, 2004
Chair from: October 12, 2004 – September 7, 2009
Current term: July 28, 2011 – July 27, 2012

Mr. Elston is a former member of the Ontario legislature, where he served from 1981 to 1995. He held a variety of roles, including Minister of Health, Chair of the Management Board of Cabinet, Minister of Financial Institutions, and Chair of the Public Accounts Committee. Prior to his election to the Ontario legislature, he practiced law in Bruce County.

Currently, Mr. Elston sits on a number of boards, including the Canadian Nurses Foundation. He is a past president of Canada's Research-Based Pharmaceutical Companies and is a former president and CEO of the Canadian Nuclear Association.



↑ A DISSOLVED AIR FLOTATION PILOT PLANT, pictured, was installed in the Technology Demonstration Facility during 2011-12 to provide new opportunities for hands-on training and research.

WAYNE MANLEY

Consultant

Member since: October 12, 2004

Current term: August 20, 2011 – August 19, 2013

Mr. Manley has been involved in drinking water operator certification and training since the early 1980s. Over the past 20 years, he has delivered training to drinking water operators, including First Nations systems' operators, across Ontario. Currently, Mr. Manley operates a consulting company that provides training and operations services to organizations and municipalities.

Mr. Manley has more than 30 years of experience in municipal drinking water treatment. He was previously the superintendent of the City of Peterborough's water treatment plant.

Mr. Manley is a member of the American Water Works Association.

STEPHEN SPITZIG

Certified Management Accountant

Member since: October 12, 2004

Current term: July 28, 2010 – July 27, 2012

Mr. Spitzig is the owner of Speedy Tax & Bookkeeping, a local accounting firm that specializes in bookkeeping, payroll, and corporate and personal income tax returns for many small to medium-sized businesses and farms in the Walkerton area. Mr. Spitzig has 27 years of accounting experience and received his Certified Management Accountant designation from the Society of Management Accountants of Ontario in 1999. He has an Honours Bachelor of Business Administration degree from Wilfrid Laurier University.

Born and raised in the town of Chepstow, Ontario, Mr. Spitzig has strong ties to the Walkerton area.

25
First Nations
drinking
water systems
operators were
sponsored to
attend
hands-on
training at
the Centre

SUSAN TODD

Dean, School of Science and Engineering Technology,
Durham College

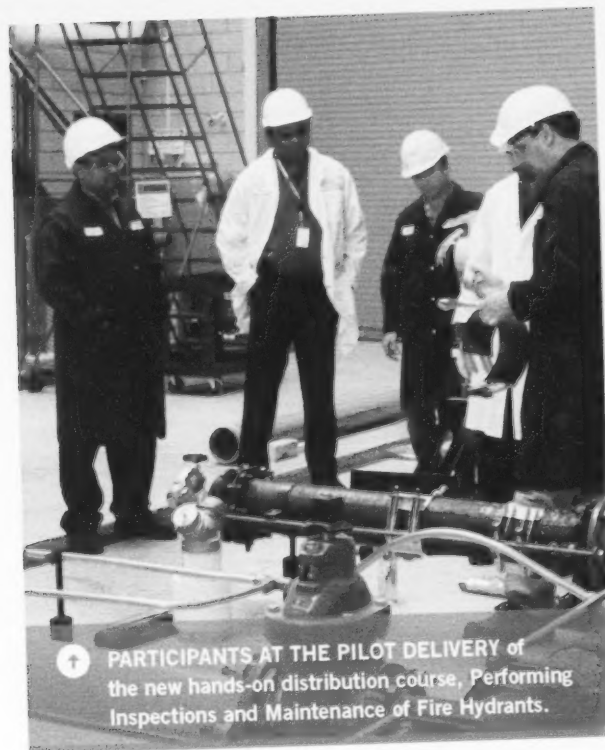
Member Since: September 16, 2010

Current term: September 16, 2010 – September 15, 2012

Ms. Todd has been involved in postsecondary education for nearly 20 years. She is currently dean of the School of Science and Engineering Technology at Durham College in Oshawa, Ontario. Ms. Todd works with program advisory members, industrial partners, faculty, and students to ensure that the college's programs are current and innovative.

Prior to her role as dean, Ms. Todd taught courses in chemistry, biology and mathematics at the postsecondary level and developed six new programs for Durham College, including the Water Quality Technician program.

Ms. Todd has past experience with both private industry and the federal government.



↑ PARTICIPANTS AT THE PILOT DELIVERY of the new hands-on distribution course, Performing Inspections and Maintenance of Fire Hydrants.

WALKERTON CLEAN WATER CENTRE ORGANIZATIONAL CHART



As of April 2012

80 people attended the fall seminar, Taste and Odour—Science and Practice and **97%** reported that they would recommend the seminar to others



GOALS & STRATEGIC DIRECTIONS

The Centre's 2011/12 – 2015/16 business plan outlines the Centre's direction for the future, making the best use of resources to deliver on its goals. This annual report describes the Centre's progress toward reaching these goals, including:

- 1. POSITIONING THE CENTRE** as the provider of the highest quality training in the drinking water industry across the province, with increased emphasis on small systems, including municipal, non-municipal, remote and First Nations systems.
- 2. MAINTAINING THE CENTRE'S LEADERSHIP** in drinking water technology demonstration, and using that capability not only for practical research and hands-on training, but also for testing and evaluating new technology produced by the Ontario water sector.
- 3. SHIFTING THE FOCUS** of WCWC research to practical research that can be transferred to training and that can directly benefit Ontario water systems, especially small systems, including municipal, non-municipal, remote and First Nations systems.
- 4. ENHANCING COST RECOVERY** in all facets of the business thereby contributing to the Centre's ability to achieve its mandate.

SUMMARY OF PERFORMANCE TARGETS FOR 2011-12 ACTIVITIES

INITIATIVE	DESCRIPTION	PERFORMANCE INDICATOR	ACHIEVED (A) ONGOING (O)	COMMENTS/ACTION PLAN
Meet training needs	Develop and deliver mandatory and WCWC training courses	Five per cent increase in the number of people trained	A	More than 10 per cent increase in the number of people trained
Evaluation of mandatory and WCWC training courses	Overall satisfaction rating for training courses delivered by the Centre	Training quality evaluation index developed and refined throughout 2011-12	O	First reporting of new target end of 2012
Hands-on training at the Centre	Volume of hands-on training (trainees x trainee hours = participant hours trained)	300 per cent increase in the overall number of hands-on training participant hours at the Centre	A	506 per cent increase in the number of hands-on training participant hours at the Centre
Practical research projects	A research plan with research priorities will be established each year. This plan will be reviewed by the Research Advisory Committee and will include independent research done by Centre staff, research collaborations and, potentially, requests for proposals regarding research	Four publications, including internal research reports, refereed publications and external presentations	A	Seven publications
Enhance cost recovery	Based on the principle of cost recovery, increase revenue streams in all areas of the Centre's business	Training: \$1,781,000 Technology Demonstration: \$60,000 Research: \$10,000 Management Services: Room Rental: \$1,000		Actual revenue by initiative: Training: \$1,708,943 Technology Demonstration: \$32,255 Research: \$0 Management Services: Room Rental: \$4,012

The Centre's
partners
delivered
99
training
days using
the Mobile
Training Units



GOAL 1:

Positioning the Centre as the provider of the highest quality training in the drinking water industry across the province, with increased emphasis on small systems, including municipal, non-municipal, remote and First Nations systems.

THE OBJECTIVE

Develop and deliver mandatory and WCWC training courses, increasing the number of registered participants by five per cent.

THE OUTCOME

The total number of training participants increased from 5,904 in 2010-11 to 6,548 in 2011-12. The results represent an increase of more than 10 per cent, which surpasses the Centre's target of a five per cent increase. Since its inception, the Centre has provided training to 34,617 participants.

The Centre's permanent facility continues to attract participants to all WCWC courses, including hands-on courses and the successful two-day Maintenancefest held in August 2011.

The following WCWC courses were introduced in 2011-12:

- Operation of Conventional Treatment Processes
- Performing Inspections and Maintenance of Fire Hydrants
- Performing Service Taps on Watermains
- Practice of Rapid Filtration
- Practice of Water Analysis and Interpretation
- Slow Sand Filtration
- Water Quality Analyst (redeveloped)
- Water Valve Operation and Maintenance



TRAINING DELIVERY across Ontario is scheduled by Leona Cunningham, Training Coordinator, Corinne Louthier, Training Coordination Supervisor and Paula VanVeen, Training Coordinator.

The Centre also piloted two new WCWC courses during 2011-12: Practical Training for Small Drinking Water System Owners and Operators, and Water Conservation. Delivery of these courses will begin in 2012-13.

At the request of the ministry, the Centre developed the new mandatory certificate renewal course: Treating and Distributing Safe Drinking Water. The Centre also administers, and with the support of the Ontario Clean Water Agency, delivers this new course.

In 2011-12, the Centre began development of the following:

- **PROVINCIAL WORKSHOP: DRINKING WATER QUALITY MANAGEMENT STANDARD.** This two-day workshop was a follow-up to the existing drinking water quality management standard courses.
- **REGIONAL MAINTENANCEFEST EVENTS.** To be held in Smiths Falls, Ontario and Chatham, Ontario in 2012.

The following table summarizes the number of participants in all of the Centre's training initiatives. It also illustrates the transition from the mandatory certificate renewal course, Safeguarding Drinking Water Quality, to the newly developed course, Treating and Distributing Safe Drinking Water, which was launched by the Centre on January 1, 2012. Anticipation of the release of the new course resulted in a decrease in the number of participants in Safeguarding Drinking Water Quality during the first three quarters of 2011-12. The number of participants is expected to increase in 2012-13 due to the launch of the new course. The mandatory courses are required by operators in order to obtain or retain their certification.

The number
of training
participants
increased by
more than
10%

TABLE 1: TRAINING STATISTICS

COURSE	NUMBER TRAINED 2009-10	NUMBER TRAINED 2010-11	NUMBER TRAINED 2011-12	THREE-YEAR CUMULATIVE TOTAL
Entry-Level Drinking Water Operator	447	350	295	1,092
Safeguarding Drinking Water Quality (classroom)	1,934	962	650	3,546
Safeguarding Drinking Water Quality (correspondence)	218	193	128	539
Treating and Distributing Safe Drinking Water (classroom)	—	—	824	824
Treating and Distributing Safe Drinking Water (correspondence)	—	—	24	24
Operation of Small Drinking Water Systems (correspondence)	1,298	1,237	1,094	3,629
Operation of Small Drinking Water Systems (online)	—	208	360	568
Operation of Small Drinking Water Systems (classroom)	56	59	47	162
SUBTOTAL: MANDATORY COURSES	3,953	3,009	3,422	10,384
Municipal Drinking Water Licensing Program (classroom)	390	111	165	666
Northern Centre for Advanced Technology (NORCAT) courses (online)	310	195	151	656
SUBTOTAL: AUXILIARY COURSES	700	306	316	1,322
WCWC courses	1,878	2,529	2,286	6,693
Standard of Care – Safe Drinking Water Act	—	60	524	584
SUBTOTAL: WCWC COURSES	1,878	2,589	2,810	7,277
TOTAL*	6,531	5,904	6,548	18,983

* Since its inception, the Centre has provided training to 34,617 participants.



MEMBERS OF THE WALKERTON CLEAN WATER CENTRE TRAINING ADVISORY COMMITTEE pictured with Chief Executive Officer Larry Moore. Left to right: Alex Vukosavljevic, Leona Cunningham, Lou D'Alessandro, Joanna Moffat, Brian Jobb (committee chair), Yvonne Tindal, Larry Moore, Richard Nancarrow, Mike Mortimer, Corinne Louthier, John Thompson. Absent from the photo is Brian Gildner.

TRAINING ADVISORY COMMITTEE

During 2011-12, the Centre established a Training Advisory Committee to advise the WCWC Training Institute and the WCWC Research & Technology Institute on the Centre's training programs. A call for interest in the committee was advertised in September 2011 and 32 applications were received. The committee is comprised of a broad cross-section of water industry specialists who bring many years of experience to help guide the Centre's training initiatives. Members of the committee are selected for two- or three-year terms, and generously volunteer their time and expertise in the areas of technical training, water utility operations, regulations, and water quality and management.

The primary goal of this committee is to ensure that appropriate training programs are developed and delivered effectively and efficiently. The specific actions of the committee include reviewing and improving the Centre's annual training plan, which involves quality control of course materials and instructors, course development based on operators' needs, and assessment of access and delivery across the province. Identification of emerging issues in drinking water treatment and recommendations for the development of related training materials are important

functions of the committee. Particular attention will also be paid to the specific needs of small systems and First Nations. It is anticipated that the committee will accurately reflect the water industry training needs in an open, transparent manner.

EVALUATION OF MANDATORY AND WCWC COURSE TRAINING

On completion of all courses offered through the Centre, participants are invited to evaluate and rate the training experience. For all courses combined, 91.7 per cent of participants rated the courses as Good or Excellent, compared with 88 per cent in 2010-11. The Centre is committed to excellence and continual improvement of its training. A quality assurance program introduced the previous year continued to be implemented in 2011-12. This program addresses the effectiveness of the training and includes increased means of course evaluation, trainer certification and clear targets for enhancement. Internal trainers contribute to the quality assurance program by providing flexibility and stability for the delivery of scheduled training courses.

The use of internal trainers ensures that qualified instructors are available in the event that an external trainer is unable to deliver a scheduled course.

91.7%
of course
participants
rated their
courses as
Good or
Excellent

FIRST NATIONS TRAINING

During the 2011-12 year, the Centre continued to provide training to First Nations operators through mandatory and WCWC courses. The Bimose Tribal Council signed an agreement with the Centre, facilitating the provision of train-the-trainer and training services to the council and its nine First Nations member communities in northwestern Ontario. As a result of the agreement, the Centre was able to deliver 125 training days to 40 First Nations operators.

The Centre also delivered an intensive two-and-a-half day hands-on training program for 14 First Nations operators in April 2011 and delivered training to the Aboriginal Water and Waste Water Association of Ontario in February 2012 and at the Ontario First Nations Technical Services Corporation First Nations Water Symposium in March 2012.

While the Centre's Mobile Training Units continue to deliver training to Northern Ontario communities, including First Nations, the Centre is continuing to evaluate the optimal mix of approaches to deliver effective training.

REGIONAL TRAINING

The Centre offers training at venues across the province. A challenge is the provision of training, and especially hands-on training, on the road. In March 2012, Centre staff delivered train-the-trainer to six new instructors who will work in northeastern Ontario to improve accessibility and availability of training. The Centre's collaborations with Confederation College and Northern College are important for coverage in Northern Ontario.

STANDARD OF CARE TRAINING

In 2011-12 the Centre continued to offer and deliver the course Standard of Care – Safe Drinking Water Act to help municipal officials, councillors and decision makers understand their obligations under the Safe Drinking Water Act, 2002. This course has proven to be popular—it has been delivered to more than 500 participants to date—and will continue to be offered.



↑ **THE NIAGARA PENINSULA ABORIGINAL AREA MANAGEMENT BOARD** sponsored the participation in Maintenancefest for 11 First Nations drinking water systems operators. The operators are pictured with Larry Moore, Chief Executive Officer, Souleymane Ndlougue, Manager, WCWC Research & Technology Institute and Venkat Ramani, Senior Operational Instructor.

MOBILE TRAINING UNITS

The Centre's Mobile Training Units are operated by Confederation College and Northern College.

During 2011-12 Confederation College delivered 99 training days using the Mobile Training Unit as well as 57 training days without the Mobile Training Unit. Confederation College also attended a Northwestern Ontario Municipal Association event where 200 attendees toured the Mobile Training Unit.

During its first year of operation, the Mobile Training Unit operated by Northern College was not used to deliver training; however, 56 training days were delivered by Northern College without the Mobile Training Unit.

A program assessment was undertaken in 2011-12, and the use of the Mobile Training Units to deliver training is still being evaluated in the context of the Centre's mandate. The results of this assessment will help guide the Centre regarding new approaches to delivering training in Northern Ontario, and effectively reaching out to northern communities.

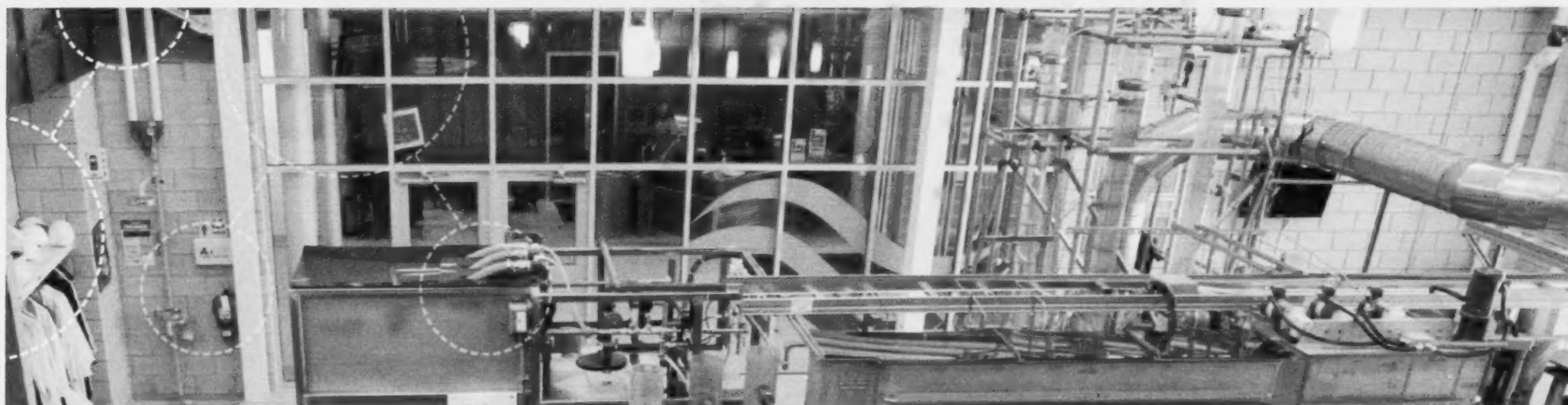
SPECIAL EVENTS

The Water Technologies Forum was held at the Centre on June 9, 2011. 130 people attended this event and 15 companies displayed their technologies and/or services. The forum was very successful; participant evaluations revealed that 100 per cent of respondents would recommend the event to others.

The Centre also held its first Maintenancefest event, August 30-31, 2011. Maintenancefest offered a variety of director-approved hands-on training modules, each led by industry experts, from which participants could choose. 110 participants attended this event and 109 responded that they would recommend it to others. The Niagara Peninsula Aboriginal Area Management Board sponsored the attendance of 11 First Nations drinking water operators at this event.

The director-approved fall seminar, Taste and Odour – Science and Practice, was also a successful event that drew 80 people to the Centre on October 20, 2011. Attendees learned about methods to control taste and odour and risk communication practices for taste and odour episodes. Participants were awarded 0.5 continuing education units upon successful completion of the seminar test. Participants' evaluations of this event were great; 97 per cent of attendees responded that they would recommend the seminar to others.

99%
of attendees
would
recommend
Maintenancefest
to others



GOAL 2:

Maintaining the Centre's leadership in drinking water technology demonstration, and using that capability not only for practical research and hands-on training, but also for testing and evaluating new technology produced by the Ontario water sector.

THE OBJECTIVE

Provide a practical hands-on training platform for students, operators and water professionals and serve as a resource to promote the variety of drinking water treatment and distribution technologies available.

THE OUTCOME

The number of hands-on training participant hours exceeded the 300 per cent increase target and was an impressive 506 per cent increase. This increase can be attributed to more colleges participating in the hands-on training program. During the 2011-12 year, the Centre provided 16 hands-on training sessions to 178 students from 10 colleges and the University of Western Ontario using the Technology Demonstration Facility. This program has been very successful, with a total of

3,191 hands-on training participant hours delivered. To offset the costs of delivering this program, the Centre solicited funding from the City of Toronto, Ontario Clean Water Agency, Region of Peel, and Canadian Water and Wastewater Association, who responded with financial contributions totaling \$20,500. Enrollment in this program is expected to increase in 2012-13 as more colleges and universities participate.

The Centre also sponsored and delivered hands-on training to a group of 14 First Nations drinking water systems operators in April 2011—the first group to successfully complete the new director-approved course Operation of Conventional Water Treatment Processes.



The Centre continues to update the Technology Demonstration Facility with the most current technologies used for drinking water treatment and distribution. During 2011-12, the Centre installed a dissolved air flotation pilot plant to provide increased opportunities for hands-on training and research.

The Centre is supporting Ontario's initiatives related to the Water Opportunities Act, 2010 and contributing to Ontario's drive to be a leader in the water technology sector. The Centre is promoting its services to Ontario companies, municipalities, and institutions in the water sector, including: third-party testing and assessment of innovative technologies/services; business-to-business collaborations; network development assistance; and industry event collaboration. The Centre's services related to innovation are in-demand. The Innovation Lead, hired in June 2011, participated in face-to-face meetings with more than 55 companies, utilities and institutions to generate interest in the Centre's technology assessment services. In 2011-12 the Centre agreed to contribute field services to the City of Guelph in their Showcasing Innovation municipal bus wash water conservation project and entered into an agreement with Xogen to conduct assessment work at the Technology Demonstration Facility.



EVAN PILKINGTON, INNOVATION LEAD,
describing opportunities for collaboration with
Ontario's water technology sector in the Technology
Demonstration Facility.

The Centre co-hosted the Regional Watertech Summit in Guelph, Ontario on September 22, 2011. The summit featured a networking business luncheon where companies shared their experiences in collaborating to create and implement successful projects. The Centre also met with a group from the University of Toronto's Institute for Optical Sciences hands-on entrepreneurship training program, Technopreneurship, in November 2011. Centre staff provided a tour of the Technology Demonstration Facility and discussed opportunities for collaboration.

2
technology
assessment
projects were
established

Laboratory

GOAL 3:

Shifting the focus of WCWC research to practical research that can be transferred to training and that can directly benefit Ontario water systems, especially small systems, including municipal, non-municipal, remote and First Nations systems.

THE OBJECTIVES

Develop cost-effective solutions to specific issues facing water systems in Ontario and apply these results to the Centre's training programs, including those geared toward small systems. Make the Technology Demonstration Facility available for research and provide professional technical assistance. Complete research projects and monitor ongoing ones.

THE OUTCOME

In 2011-12, the Centre successfully shifted its focus from funding external researchers to planning and conducting practical research. The WCWC Research & Technology Institute undertook, completed and published a number of research projects during 2011-12. The role of the Centre's Research Advisory Committee was also redefined and new committee members were selected.



PARTICIPANTS AT THE FALL SEMINAR, Taste and Odour – Science and Practice, diligently complete the seminar test.

RESEARCH ADVISORY COMMITTEE

In 2011-12 the Centre selected new members for the Research Advisory Committee. A call for interest for the Research Advisory Committee was advertised in September 2011 and applications were received and evaluated. Members of the committee participate voluntarily, and include experts in research, water technology innovation, small and large water utility operations, a microbiologist from the Ministry of the Environment and Centre staff. The committee's responsibilities include the review of the annual research plan that lays the groundwork for the upcoming year's research, including research priorities and revenue.

PUBLISHED RESEARCH PAPERS

During 2011-12, the following seven research papers were published, exceeding the Centre's target of four published research projects. Details on these projects can be found on the Centre's website at <http://www.wcwc.ca/en/research/papers/>.

- ➊ **A Guide for the Choice of Drinking Water Treatment Technologies for Small and Very Small Water Systems: RES'EAU WaterNET Project 4.2.** This guide was developed by Brock University and the Centre and was presented at the Big Value in Small Systems Biennial Knowledge Transfer Workshop in Vancouver, British Columbia in October 2011.

- ➋ **Advanced Oxidation Treatment of Drinking Water: Part I. Occurrence and removal of Pharmaceuticals and Endocrine Disrupting Compounds from Lake Huron Water.** This research project was presented at the 2nd North American Conference on Ozone, Ultraviolet & Advanced Oxidation Technologies in Toronto, Ontario in September 2011.
- ➌ **Effect of Advanced Oxidation processes on chlorine residuals.** This research project was presented in a poster at the Ontario Water Works Association/Ontario Municipal Water Association Joint Annual Conference and Ontario Water Works Equipment Association Trade Show held in Collingwood, Ontario in May 2011.
- ➍ **Monitoring Surface Water Quality of Inland Lakes Prone to Cyanobacteria.** This research project was presented in a poster at the 47th Central Canadian Symposium on Water Quality Research in Burlington, Ontario in February 2012.
- ➎ **Pilot Scale Study for the Control of Disinfection By-products Using Pre-coagulation ozone in Warm Water Conditions.** This research project was presented at the 47th Central Canadian Symposium on Water Quality Research in Burlington, Ontario in February 2012.

7
research
papers were
published

- **Removal of Pharmaceuticals and Personal Care Products and Reduction of Disinfection by-products using Ozone/ H_2O_2 and UV/ H_2O_2 .** This research project was presented in a poster at the Big Value in Small Systems Biennial Knowledge Transfer Workshop in Vancouver, British Columbia in October 2011.
- **Removal of Pharmaceuticals, Personal Care Products and Endocrine Disrupting Compounds and disinfection by-products reduction using ozone/ H_2O_2 and UV/ H_2O_2 processes.** This research project was presented at the 2nd North American Conference on Ozone, Ultraviolet & Advanced Oxidation Technologies in Toronto, Ontario in September 2011.

ONGOING RESEARCH

Centre staff worked on a number of ongoing research projects and proposals, including:

- Effect of drinking water treatment on cyanotoxin removal/inactivation.
- Full scale investigation of the performance of slow sand process. Slow sand is thought to be a good choice for small water systems, but cold water performance is in question.
- Pilot scale testing of biofiltration as a pretreatment to ceramic membrane. The Centre has initiated alliances with researchers from the University of Waterloo who are leading this project. This project was successfully funded by the Ontario Research Fund Water Round program in 2011.



↑ **MEMBERS OF THE WALKERTON CLEAN WATER CENTRE RESEARCH ADVISORY COMMITTEE** pictured with Chief Executive Officer Larry Moore. Left to right: Xiaohui Jin, Paul Otis, James Phippen, Tory Hewlett, Nick Markettos, Usha Srinivasan, Bill Dukes, Ron Hofmann, Larry Moore, Souleymane Ndlougue, committee chair. Absent from the photo is Susan Weir.

- ➔ Monitoring nutrient levels in two local lakes that are prone to cyanobacteria blooms. The Centre is involved in the Surface Water Quality Committee in the Municipality of Brockton and plans to contribute to this project by providing in-kind support, including measuring and monitoring water quality parameters of local lakes. Water samples will also be sent for analysis for algal identification and algal toxin levels. Monitoring water quality parameters and potential toxins levels can ultimately help identify drinking water treatment options. Involvement in this project is also a great opportunity to contribute to the local community. The Centre intends to seek project participants to expand the project.
- ➔ Comparative study to investigate the performance of slow sand, conventional treatment and dissolved air flotation.

The Centre also supported a successful application by researchers at the University of Waterloo for a research project regarding the use of fluorescence for identifying foulants and optimizing drinking water production. The Centre will be collaborating with the researchers on this project and will be conducting a related comparative study to investigate the performance of different trains to remove selected contaminants.

SPONSORED RESEARCH

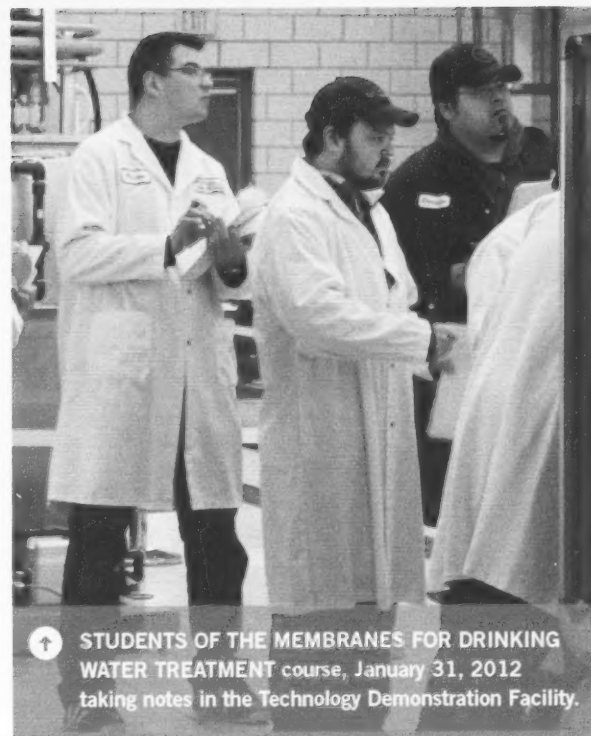
The following research projects were awarded Centre grants during previous years and were completed in 2011-12, or are ongoing:

- ➔ Analysis and removal of Ibuprofen and Naproxen from Drinking Water and Wastewater, University of Western Ontario (ongoing).
- ➔ ATP Bioluminescence Technology as a real-time Monitoring Tool for UV and Chlorine Disinfection, Carleton University (ongoing).
- ➔ Bisphenol-A in Water Treatment Plant Effluents and Human Urine Samples from Southwestern Ontario, University of Western Ontario (ongoing).
- ➔ Comparison of Alum and Ferric Coagulant Impacts on Biofiltration Performance in Ontario, University of Ottawa (ongoing).
- ➔ Development of New Membranes and/or Modification of Existing Membranes for an Optimized process to Remove Pharmaceuticals and Personal Care Products (PPCPs) and Endocrine Disrupting Compounds (EDCs) from Drinking Water Sources, University of Ottawa (complete).

As a result
of the
agreement
with the
Bimose Tribal
Council,
125
training
days were
delivered to
40
First Nations
operators

- **Evaluation of the Removal of Pharmaceuticals and Personal Care Products (PPCPs) and Endocrine Disrupting Compounds (EDCs) and the Potential of By-Products Formation during Ozone and UV Application in Drinking Water Treatment**, University of Windsor and University of Waterloo (complete).
- **Impact of Fouling on Virus Removal by Ultrafiltration Membranes**, University of Waterloo (complete).
- **Optimizing Dissolved Air Flotation for Drinking Water Treatment through Modeling**, University of Toronto (ongoing).
- **Survey of Small Systems in Ontario**, University of Guelph (complete).
- **RES'EAU WaterNET** research network (ongoing).

The research projects marked as ongoing will be completed during 2012-13, thereby fulfilling the Centre's grant commitments.



↑ **STUDENTS OF THE MEMBRANES FOR DRINKING WATER TREATMENT** course, January 31, 2012 taking notes in the Technology Demonstration Facility.

UNIVERSITY RESEARCH SCHOLARSHIPS

In 2011-12 Teela O'Neill was chosen to receive a university research scholarship. The scholarship was awarded at the Ontario Water Works Association/Ontario Municipal Water Association Joint Annual Conference and Ontario Water Works Equipment Association Trade Show in May 2011. Ms. O'Neill is a student at the University of Ottawa and her project pertains to the development of monoclonal antibodies targeting strains of *Listeria monocytogenes* by selection of surface antigens with genomics-based and biochemical approaches and evaluation of their use in the isolation of this pathogen from food and water. 2011-12 was the final year of the university research scholarship program.

AWARDS

Devendra Borikar, Technology Demonstration Lead, was awarded with the Best Student Presentation Award at the 2nd North American Conference on Ozone, Ultraviolet & Advanced Oxidation Technologies in Toronto, Ontario in September 2011. Mr. Borikar is a Ph. D. student of RES'EAU WaterNET at the University of British Columbia. Continuing on the success of the Centre, the International Ozone Association's Harvey Rosen Award, which recognizes the best paper published in Ozone: Science & Engineering for the two-year period preceding an International Ozone Association World Congress, was presented to the authors of Advanced Oxidation Treatment of Drinking Water: Part I. Occurrence and Removal of Pharmaceuticals and Endocrine Disrupting Compounds from Lake Huron Water. The award was presented at the 20th Ozone World Congress in Paris, France on May 25, 2011. This paper and its authors were reported in the 2010-11 annual report.

**Innovation
Lead
participated
in face-to-face
meetings with
more than**

55
**companies,
utilities and
institutions
to generate
interest in
the Centre's
technology
assessment
services**



GOAL 4 :

Enhancing cost recovery in all facets of the business thereby contributing to the Centre's ability to achieve its mandate.

THE OBJECTIVE

Based on the principle of cost recovery, increase revenue generated by the WCWC Training Institute, the WCWC Research & Technology Institute (technology demonstration and research programs) and the Department of Management Services in order to offset the costs of delivering the Centre's ongoing programs.

THE OUTCOME

During 2011-12 the WCWC Training Institute generated revenue of \$1.7 million and the WCWC Research & Technology Institute earned more than \$32,000 through technology demonstration.

This provided greater flexibility for research priorities, and the Centre successfully refocused its research program to concentrate on practical research that will help in developing cost-effective solutions for water systems in Ontario. However, because the program was being redefined and the Research Lead was hired later in the year, September 2011, the program was unable to generate revenue in the first year since its transformation.



More than \$4,000 was generated by renting training rooms to local businesses and community groups. Offering the Centre's training rooms for rent maximizes the use of the Centre, while supporting local businesses and community groups that require space for meetings and training. This program also elevates the Centre's profile in the local area and demonstrates the Centre's commitment to community involvement.



TORY HEWLETT, TECHNICIAN, providing hands-on training to students from Sir Sandford Fleming College, February 28, 2012.

**The WCWC
Training
Institute
generated
\$1,708,943
of revenue**



ADHERENCE TO GOVERNANCE, ACCOUNTABILITY AND OPERATIONS FRAMEWORKS

THE OBJECTIVE

To safeguard drinking water for the people of Ontario as the leading centre for high-quality training, applied research and technology demonstration, in accordance with the following:

- **ONTARIO REGULATION 304/04** under the Development Corporations Act
- **THE MEMORANDUM** of understanding between the Minister of the Environment and the Centre
- **APPLICABLE MANAGEMENT BOARD** of Cabinet directives
- **THE CENTRE'S** by-laws
- **OTHER ELEMENTS** of an effective governance and accountability framework

THE OUTCOME

The Centre is keenly aware of the parameters of its governance structure, which is vital to the Centre's operations; equally important is the Centre's accountability to numerous stakeholder groups. The Centre is accountable to the people of Ontario and members of the Walkerton community.

Numerous initiatives in 2011-12 focused on governance and accountability, including:

- **A STRATEGIC PLANNING WORKSHOP** held in October 2011 where directors and staff were actively involved in reviewing the Centre's mission, mandate, corporate governance and performance indicators. Following the workshop, a new five-year business plan was developed.
- **THE PREPARATION OF AN ANNUAL REPORT** in an accurate and timely manner in accordance with the Agency Establishment and Accountability Directive.

PROFESSIONAL DEVELOPMENT AND CONTINUOUS LEARNING

The Centre encourages professional development by providing ongoing learning and development opportunities for staff and the board of directors. Staff performance planning and evaluations were completed on time.

Staff participated in a number of training programs, including:

- **ANNUAL PROCUREMENT** training delivered by the Ministry of the Environment
- **RISK ASSESSMENT** training delivered by the Ministry of Finance, Ontario Internal Audit Division
- **GOVERNANCE** training delivered to the Centre's management team

The board of directors also received training during 2011-12. Board members participated in a Board of Directors Governance Development Session, April 1-2, 2011.

ACCESSIBILITY STANDARDS

The Centre continues to meet the requirements of Ontario Regulation 429/07, Accessibility Standards for Customer Service. The Centre is a member of the ministry's Accessibility Planning Working Group as well.

CONTINUITY OF OPERATIONS PLAN

The Centre is a member of the ministry's Continuity of Operations Planning Development Committee. The Centre prepares and submits a Continuity of Operations Plan based on a scheduled deadline. The Centre's Continuity of Operations Plan committee actively works to identify and manage risks.

ADHERENCE TO GOVERNMENT APPOINTEES DIRECTIVE

The total annual remuneration for members of the board of directors was \$16,537.50 in 2011-12.

The Centre's
board and
training rooms
were rented to

17
different
businesses
and
community
groups



COMMUNICATIONS

Centre staff participate in a variety of activities to raise the profile of the Centre in the local community and across the province. Staff promote and market the Centre to target audiences, including clients and stakeholders. During 2011-12, the Centre's website was revamped to improve usability and a database was launched to simplify the administration of training courses and events. The Centre's website content is updated on an ongoing basis to raise awareness about the Centre's programs. The Centre also joined both the Walkerton and Hanover chambers of commerce to heighten its community profile.

CONFERENCES AND EVENTS

Centre staff attend conferences, trade shows and events for professional development, to promote the Centre and to network with individuals in the drinking water industry. In 2011-12, Centre staff attended a variety of events, including:

- **Ontario Water Works Association/Ontario Municipal Water Association Joint Annual Conference and Ontario Water Works Equipment Association Trade Show**, May 1-4, 2011
- **Ontario Centres of Excellence Discovery 2011**, May 20, 2011
- **American Water Works Association, Annual Conference & Exhibition**, June 12-16, 2011
- **Association of Municipalities of Ontario Annual Conference**, August 21-24, 2011
- **2nd North American Conference on Ozone & Ultraviolet Technologies**, September 19, 2011
- **Ontario Environment Industry Association Regional Watertech Summit**, September 22, 2011



- **Ontario Clean Water Agency Technology Showcase,**
December 7, 2011
- **Canadian Association on Water Quality, 47th Central
Canadian Symposium on Water Quality Research,**
February 21-22, 2012
- **American Water Works Association and American
Membrane Technology Association, Membrane Technology
Conference & Exposition,** February 27 – March 1, 2012
- **Assembly of First Nations, National Water Conference,**
March 5-7, 2012
- **Federation of Canadian Municipalities, Expert Workshop
on Water Technology and Best Practices for Water and
Wastewater Management for First Nations and Small
Rural Municipalities,** March 13-14, 2012
- **GLOBE 2012 Trade Fair Conference,**
March 14-16, 2012
- **Ontario First Nations Technical Services Corporation,
First Nations Water Symposium,** March 20-21, 2012
- **University of Waterloo, World Water Day Graduate
Research Fair,** March 22, 2012

SPONSORSHIPS

The Centre sponsored key events in the drinking water industry and local community, including:

- **Ontario Water Works Association/Ontario Municipal Water
Association Joint Annual Conference and Ontario Water
Works Equipment Association Trade Show,** May 1-4, 2011
- **Grey Bruce Sustainability Network/Ripples of Change
Energy Career Day,** June 1, 2011
- **Association of Municipalities of Ontario Annual
Conference,** August 21-24, 2011
- **Grey Bruce Children's Water Festival,**
September 27-30, 2011
- **Ontario Ground Water Association regional training
meetings,** January 17 – March 22, 2012
- **Assembly of First Nations National Water Conference,**
March 5-7, 2012

178
postsecondary
students
participated
in hands-on
training at the
Centre

TOURS

The Centre provides tours of its LEED Gold building, which includes the Technology Demonstration Facility, to support outreach and community relations. More than 400 people in 28 groups visited the Centre during 2011-12, including:

- ➔ **Environmental Protection Bureau**, Changzhou City, Jiangsu Province, China, June 28, 2011
- ➔ **Water Resources Planning Institute**, Ministry of Economic Affairs, Taiwan, July 21, 2011
- ➔ **University of Western Ontario, Centre for Environment and Sustainability**, Masters of Environment & Sustainability program, November 14, 2011
- ➔ **University of Toronto, Institute for Optical Sciences**, Technopreneurship program, November 21, 2011
- ➔ **Grey Bruce Health Unit**, November 24, 2011
- ➔ **Japanese Environmental Technology Verification Delegation**, January 27, 2012
- ➔ **General Manager, National Association of Water and Sanitation Utilities**, Peru, March 22, 2012



↑ **TECHNICIANS LINDSAY ARISS AND LAURA ZETTLER** provide support to the Centre's hands-on training, technology demonstration, research and innovation programs.

SPEAKING ENGAGEMENTS

The Centre's Chief Executive Officer and staff spoke about the Centre's work at a number of events, including:

- Ontario Water Works Association/Ontario Municipal Water Association Joint Annual Conference and Ontario Water Works Equipment Association Trade Show, May 1-4, 2011
- 58th Annual Ontario Small Urban Municipalities Conference, May 6, 2011
- RES'EAU WaterNET Biennial Knowledge Transfer Workshop, October 4-7, 2011
- Ontario Drinking Water Advisory Council meeting, December 16, 2011
- Federation of Canadian Municipalities 2012 Sustainable Communities Conference and Trade Show, February 8-10, 2012
- Assembly of First Nations, National Water Conference, March 6-7, 2012
- Ontario First Nations Technical Services Corporation, First Nations Water Symposium, March 20-22, 2012
- Rotary Club of Kincardine World Water Day Celebration, March 22, 2012
- Central Ontario Water Works Association 51st Annual Technical Seminar, March 28, 2012
- Canadian Urban Institute, Urban Leadership Session, March 30, 2012

International
delegations
from

4

countries
toured the
Centre



LOOKING FORWARD

The Centre will continue to make the best use of resources to fulfill its mission and deliver on its mandate.

WCWC TRAINING INSTITUTE

The WCWC Training Institute is committed to meeting the training needs of the owners, operators and operating authorities of Ontario's drinking water systems, as well as municipal councillors and decision makers. Areas of focus include:

- **PROVIDING** the highest quality training, with increased support for small systems, including municipal, non-municipal, remote and First Nations systems.
- **INVESTIGATING** opportunities to provide more services to large utilities.
- **DEVELOPING** the quality assurance program, including: review of instructor qualifications and verification that all trainers are qualified by experience and/or through adult education courses; internal audit of courses to ensure a consistently high level of content and instruction; development of a course standards template to ensure that all WCWC courses meet the Centre's standards.
- **COORDINATING** with the WCWC Research & Technology Institute to develop hands-on training components for existing courses.
- **INTRODUCING** a new course classification system allowing trainees to progress from Operator-in-Training to Class Four by taking training courses that are progressively more technically advanced and targeted to their skill and experience levels. Inherent in this is the development of more advanced training.
- **ADDING** new courses to meet the needs of the sector.
- **CONSIDERING** opportunities to deliver train-the-trainer sessions to more First Nations and develop working relationships with other tribal councils.
- **EXPANDING** on the use of a hands-on approach to train on practical skills. This includes delivery of Maintenancefest events across the province.



↑ PARTICIPANTS AT THE FIRST ANNUAL MAINTENANCEFEST, August 30-31, 2011, receive hands-on training on fire hydrant maintenance and inspections.

WCWC RESEARCH & TECHNOLOGY INSTITUTE

The Centre will use its capability related to technology demonstration as a platform for practical research, hands-on training, and the evaluation of technologies produced by Ontario's water sector. Ongoing and future programs of the WCWC Research & Technology Institute include:

- **SUPPORTING** Maintenancefest events throughout Ontario.
- **ENHANCING** hands-on training to postsecondary students enrolled in Ontario colleges providing the ministry's mandatory Entry-Level Drinking Water Operator course.
- **INCREASING** hands-on training for First Nations drinking water systems operators.
- **ENCOURAGING** graduate students and post-doctoral fellows to conduct research using the Technology Demonstration Facility.

- **DISTRIBUTING** research results by submitting research papers for presentation at conferences and events.
- **CONTRIBUTING** to Ontario's drive to be a leader in the water technology sector by providing services and support including assessment of drinking water technologies and services, business-to-business collaborations and network development assistance to the Ontario water sector, and establishing technology assessment projects to be completed at the Technology Demonstration Facility.
- **DEVELOPING** hands-on components to be added to existing training courses, including components using a dissolved air flotation system that has been installed and is fully functional in the Technology Demonstration Facility.
- **INVESTIGATING** alternative methods to deliver hands-on training outside of the Technology Demonstration Facility.

The Centre's 2012-13 research plan is posted on the Centre's website, <http://www.wcwc.ca>

The Centre will continue to develop the quality assurance program to ensure that all WCWC courses meet the Centre's standards



MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL INFORMATION

Senior management and the board of directors are responsible for the financial performance of the Centre. The board reviews and approves the Centre's financial statements and all information presented in this annual report. The board is also responsible for ensuring that there is an annual audit of the Centre's accounts and financial transactions. The annual audit is subject to review by the Auditor General of Ontario.

FINANCE AND AUDIT COMMITTEE'S RESPONSIBILITIES

The board's finance and audit committee receive and review the Centre's quarterly financial reports. The reports include variance summaries for the individual initiatives, which are reviewed closely with the Centre's management team.

The finance and audit committee also plays a number of important roles in the audit process, including: meeting with the Centre's management team and external auditors to review any issues that need to be identified in the upcoming audit; reviewing the external auditors' evaluation of internal controls with management; reviewing the completed reports issued by the external auditors and management's response and subsequent follow up to any identified weaknesses.

EXTERNAL AUDIT

The 2011-12 financial statements were audited by Deloitte and Touche LLP. The chartered accountant's responsibility is to express an opinion on whether the financial statements are fairly presented in accordance with Canadian generally accepted accounting principles. The auditor's report outlines the scope of the firm's examination and opinion.

FINANCIAL DISCUSSION

REVENUE

The Centre's main source of revenue continues to be the annual transfer payment from the Government of Ontario, which was \$4 million this year. The Centre also generates revenue from cost recovery based fees for training and technology demonstration.

EXPENDITURES

The Centre's internal controls continue to effectively monitor overall expenditures. Expenditures increased by 2.7 per cent from 2010-11 to 2011-12.

BALANCE SHEET

The Centre continues to be in a strong financial position. It recognized a balance of over \$12 million as of March 31, 2012, which will fund the Centre's ongoing commitments to excellence in training, research and innovation in Ontario.

In 2011-12, the Centre's deferred revenue increased. On March 30, 2012, the Centre received a \$3 million transfer payment from the Government of Ontario for 2012-13. These funds were therefore treated as deferred revenue in 2011-12 and revenue in 2012-13.



Deloitte

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I N D E P E N D E N T A U D I T O R ' S R E P O R T

TO MEMBERS OF THE WALKERTON CLEAN WATER CENTRE BOARD

We have audited the accompanying financial statements of the Walkerton Clean Water Centre, which comprise the statement of financial position as at March 31, 2012, and the statements of operations and changes in net assets and of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The

procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

OPINION

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Walkerton Clean Water Centre as at March 31, 2012 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Deloitte & Touche LLP

Chartered Accountants,
Licensed Public Accountants
June 11, 2012

STATEMENT OF FINANCIAL POSITION

AS AT MARCH 31, 2012

2012

2011

ASSETS

Current assets

Cash	\$ 13,782,950	\$ 11,595,001
Accounts receivable	336,290	206,099
Prepaid expenses	58,917	74,708
	<u>14,178,157</u>	<u>11,875,808</u>

Capital assets (Note 3)

1,615,503 1,712,795

Other assets (Note 4)

742,793 712,691

\$ 16,536,453 \$ 14,301,294

LIABILITIES

Current liabilities

Accounts payable and accrued liabilities	\$ 506,390	\$ 1,598,350
Deferred revenue	3,314,637	171,012
	<u>3,821,027</u>	<u>1,769,362</u>

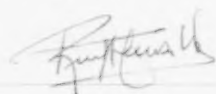
Commitments (Note 7)

NET ASSETS

12,715,426 12,531,932

\$ 16,536,453 \$ 14,301,294

Approved by the Board:



Director



Director

STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS

YEAR ENDED MARCH 31, 2012	2012	2011
REVENUE		
Province of Ontario transfer payment (Note 5)	\$ 4,000,000	\$ 4,000,000
Training registrations	1,708,943	1,665,050
	<u>\$ 5,708,943</u>	<u>\$ 5,665,050</u>
EXPENSES		
Advertising and promotion	\$ 164,963	\$ 229,077
Amortization	381,646	401,904
Audit and legal	12,550	13,600
Bank charges	2,323	2,240
College and university support	31,500	51,671
Conferences	46,800	31,756
Consulting fees	8,476	3,375
Director fees	16,538	16,748
Employee benefits	346,896	323,489
Insurance	37,844	39,812
Office	216,332	166,951
Ontario Realty Corporation construction payments	—	385,794
Professional development	58,915	27,779
Property maintenance	6,877	8,967
Rent	592,149	83,170

STATEMENT OF OPERATIONS AND CHANGES IN NET ASSETS

YEAR ENDED MARCH 31, 2012	2012	2011
EXPENSES CONT.		
Repairs and maintenance	\$ 34,386	\$ 50,507
Research projects	103,546	261,629
Salaries	1,794,400	1,552,638
Sponsorships	41,732	33,506
Subscriptions and memberships	17,105	17,154
Telephone	34,253	39,173
Training	1,267,232	1,267,545
Travel	77,517	78,380
Vehicle	67,775	84,813
Website and communications	279,330	320,415
	<u>\$ 5,641,085</u>	<u>\$ 5,492,093</u>
Excess of revenue over expenses from operations before interest and other income and loss on disposal of capital assets	\$ 67,858	\$ 172,957
Interest and other income	159,461	108,443
Loss on disposal of capital assets	(43,825)	(11,453)
Excess of revenue over expenses for the year	<u>183,494</u>	<u>269,947</u>
Net assets balance, beginning of year	<u>12,531,932</u>	<u>12,261,985</u>
NET ASSETS BALANCE, END OF YEAR	<u>\$ 12,715,426</u>	<u>\$ 12,531,932</u>

STATEMENT OF CASH FLOWS

YEAR ENDED MARCH 31, 2012	2012	2011
OPERATING ACTIVITIES		
Excess of revenue over expenses for the year	\$ 183,494	\$ 269,947
Items not affecting cash		
Amortization	381,646	401,904
Loss on disposal of capital assets	43,825	11,453
Changes in non-cash operating working capital items		
Accounts receivable	(130,191)	(90,474)
Prepaid expenses	15,791	(20,766)
Accounts payable and accrued liabilities	(1,091,960)	560,157
Deferred revenue	3,143,625	(112,888)
	<u>\$ 2,546,230</u>	<u>\$ 1,019,333</u>
INVESTING ACTIVITIES		
Acquisition of capital assets	\$ (318,930)	\$ (354,469)
Acquisition of curriculum rights	(54,796)	(66,951)
Proceeds on disposal of capital assets	15,445	3,000
	<u>\$ (358,281)</u>	<u>\$ (418,420)</u>
Net change in cash during the year	\$ 2,187,949	\$ 600,913
Cash, beginning of year	11,595,001	10,994,088
CASH, END OF YEAR	<u>\$ 13,782,950</u>	<u>\$ 11,595,001</u>
SUPPLEMENTARY DISCLOSURE OF CASH FLOWS		
Interest received	\$ 123,193	\$ 106,840

NOTES TO THE FINANCIAL STATEMENTS

MARCH 31, 2012

1 NATURE OF OPERATIONS

The Walkerton Clean Water Centre is an operational service agency of the Province of Ontario and was established on October 1, 2004 under the authority of The Development Corporation Act.

In accordance with the Act, the Centre's objectives are to:

- a) Coordinate and deliver training for drinking water system owners and operators.
- b) Provide information, education and advice about drinking water science, treatment and technology, operational requirements, and environmental issues related to drinking water to owners, operators and the public.
- c) Provide advice to the Minister of the Environment on research and development priorities to achieve safe drinking water and sponsor drinking water research within the Centre's mandate.

The Centre is exempt from Federal and Provincial income taxes.

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These financial statements have been prepared in accordance with Canadian generally accepted accounting principles. The significant accounting policies of the Centre are as follows:

CAPITAL ASSETS

Purchased capital assets are recorded at cost. Donated capital assets are recorded at the estimated fair market value upon donation. Amortization is based on the estimated useful life of the asset and is calculated with a half year provision as follows:

Computer equipment	33% declining balance
Computer software	50% declining balance
Office furniture and equipment	20% declining balance
Leasehold improvements	3, 4 and 5 years straight-line
Signs	20% declining balance
Technical equipment	20% declining balance

OTHER ASSETS

Curriculum rights are recorded at cost. Since they have an unlimited useful life, the rights have not been amortized. Annually the cost of the curriculum rights will be tested for impairment.

REVENUE RECOGNITION

Transfer payments are recognized when the amount is known and collectability is reasonably assured. Revenue from training registration is recognized when payment is receivable and the course has been completed. Interest revenue is recognized as it is earned over the period of investment. Donation revenue is recognized once the Centre has possession of the goods donated.

NOTES TO THE FINANCIAL STATEMENTS

MARCH 31, 2012

2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES CONT.

CASH

Cash consists of amounts on hand and balances in the bank.

USE OF ESTIMATES

The preparation of financial statements in conformity with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates.

FINANCIAL INSTRUMENTS

The Centre has classified its financial instruments as follows:

- ➔ Cash as "held-for-trading". Held-for-trading items are carried at fair value with changes in their fair value recognized in the statements of operations and changes in fund balances in the current period.
- ➔ Accounts receivable as "loans and receivables". Loans and receivables are carried at amortized cost, using the effective interest method.
- ➔ Accounts payable and accrued liabilities as "other liabilities". Other liabilities are carried at amortized cost, using the effective interest method.

The Centre has chosen to apply the requirements of Section 3861, Financial Instruments – Presentation and Disclosure in place of application of Section 3862, Financial Instruments – Disclosure and Section 3863, Financial Instruments – Presentation.

FUTURE ACCOUNTING CHANGES

NEW ACCOUNTING FRAMEWORK

The Canadian Institute of Chartered Accountants ("CICA") has issued a new accounting framework applicable to not-for-profit organizations effective for fiscal years beginning on or after January 1, 2012. The choice of framework selected is dependent on whether the organization is determined to be a not-for-profit organization or a government not-for-profit organization. As the Centre is significantly influenced by the Province of Ontario it will be considered a government not-for-profit organization and is required to adopt the standards outlined in either (a) the CICA Public Sector Accounting Handbook (PSAB), including Sections PS 4200 to PS 4270 or, alternatively, (b) the CICA PSAB Handbook without Sections PS 4200 to PS 4270. The Centre currently plans to adopt the accounting standards outlined in the CICA PSAB Handbook for its fiscal year beginning April 1, 2012; however, the impact of this transition has yet to be determined.

NOTES TO THE FINANCIAL STATEMENTS

MARCH 31, 2012

3 CAPITAL ASSETS

	2012		2011	
	COST	ACCUMULATED AMORTIZATION	NET BOOK VALUE	NET BOOK VALUE
Computer equipment	\$ 161,251	\$ 138,795	\$ 22,456	\$ 44,994
Computer software	53,129	40,583	12,546	6,451
Office furniture and equipment	326,339	179,517	146,822	166,915
Leasehold improvements	42,854	20,095	22,759	21,417
Signs	45,319	25,592	19,727	15,638
Technical equipment	2,810,733	1,419,540	1,391,193	1,457,380
	\$ 3,439,625	\$ 1,824,122	\$ 1,615,503	\$ 1,712,795

4 OTHER ASSETS

	2012	2011
Curriculum rights, at cost	\$ 742,793	\$ 712,691

During the year, curriculum rights in the amount of \$54,796 were purchased (2011 - \$66,951). Curriculum rights totaling \$24,694 (2011 - \$Nil) for assets no longer in use have been removed from the cost base of the asset.

5 TRANSFER PAYMENTS

During the year, the Centre received \$4,000,000 (2011 - \$4,000,000) in transfer payments from the Province of Ontario.

NOTES TO THE FINANCIAL STATEMENTS

MARCH 31, 2012

6 PENSION PLAN

The Centre provides pension benefits for all its full-time employees through participation in the Public Service Pension Plan which is a multi-employer defined benefit pension plan administered by the Ontario Pension Board. This plan is accounted for as defined contribution plan, as the Centre has insufficient information to apply defined benefit accounting to the plan. The Centre's contribution related to the pension plan for the period was \$126,624 (2011 - \$109,425) and is included in employee benefits in the statement of revenue and expenses.

7 COMMITMENTS

The Centre leases its office under an operating lease which expires August 31, 2012 and has entered into various vehicle operating leases that expire on May 2012 and October 2012. Future lease payments aggregate \$2,429,720 and include the following repayments over the next five years:

2013	\$ 529,297
2014	\$ 499,789
2015	\$ 466,878
2016	\$ 466,878
2017	\$ 466,878

The Centre has previously been committed to payments estimated at \$8,300,000 to the Ontario Realty Corporation for building a new administration, conference and technology demonstration facility. During the year, the Centre has accrued for payments of \$Nil (2011 - \$385,794) on design and construction costs. The construction payments have been recognized as an expense in these financial statements as the Ontario Realty Corporation holds title to the property. The construction costs have been fully recognized.

8 CAPITAL MANAGEMENT

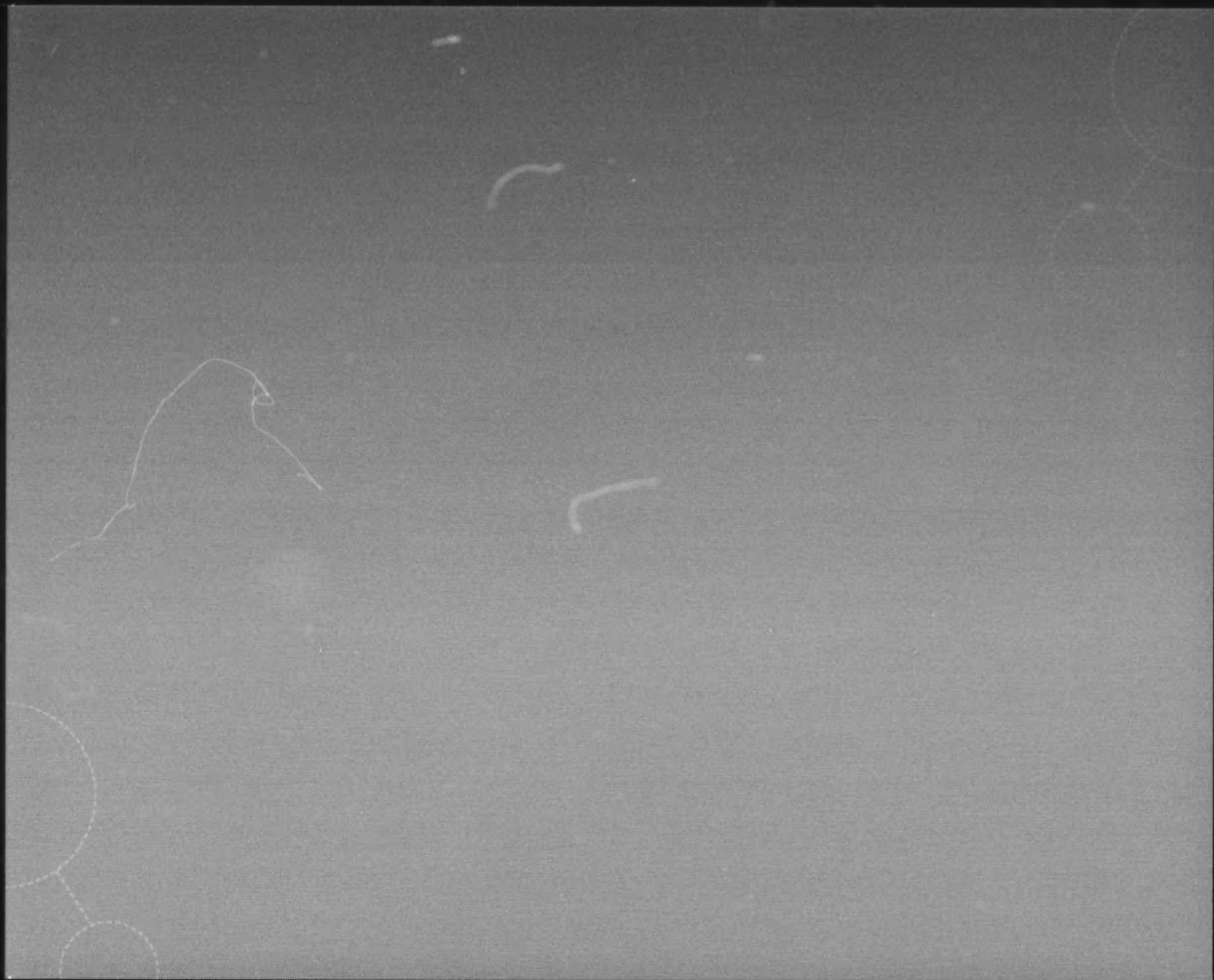
The Centre considers its capital to be its unrestricted net assets. The Centre's objectives when managing its capital are to safeguard its ability to continue as a going concern so it can continue to provide services. The Centre monitors its capital to ensure that it is at an appropriate level.

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